

§ 141.60
Subpart G—National Primary Drinking Water Regulations: Maximum Contaminant Levels and Maximum Residual Disinfectant Levels
§ 141.60 Effective dates.

- (a) The effective dates for § 141.61 are as follows:
- (1) The effective date for paragraphs (a)(1) through (a)(8) of § 141.61 is January 9, 1989.
 - (2) The effective date for paragraphs (a)(9) through (a)(18) and (c)(1) through (c)(18) of § 141.61 is July 30, 1992.
 - (3) The effective date for paragraphs (a)(19) through (a)(21), (c)(19) through (c)(25), and (c)(27) through (c)(33) of § 141.61 is January 17, 1994. The effective date of § 141.61(c)(26) is August 17, 1992.

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(b) The effective dates for § 141.62 are as follows:

- (1) The effective date of paragraph (b)(1) of § 141.62 is October 2, 1987.
- (2) The effective date for paragraphs (b)(2) and (b)(4) through (b)(10) of § 141.62 is July 30, 1992.
- (3) The effective date for paragraphs (b)(11) through (b)(15) of § 141.62 is January 17, 1994.
- (4) The effective date for § 141.62(b)(16) is January 23, 2006.

[56 FR 3593, Jan. 30, 1991, as amended at 57 FR 31846, July 17, 1992; 59 FR 34324, July 1, 1994; 66 FR 7063, Jan. 22, 2001]

§ 141.61 Maximum contaminant levels for organic contaminants.

(a) The following maximum contaminant levels for organic contaminants apply to community and non-transient, non-community water systems.

CAS No.	Contaminant	MCL (mg/l)
(1) 75-01-4	Vinyl chloride	0.002
(2) 71-43-2	Benzene	0.005
(3) 56-23-5	Carbon tetrachloride	0.005
(4) 107-06-2	1,2-Dichloroethane	0.005
(5) 79-01-6	Trichloroethylene	0.005
(6) 106-46-7	para-Dichlorobenzene	0.075
(7) 75-35-4	1,1-Dichloroethylene	0.007
(8) 71-55-6	1,1,1-Trichloroethane	0.2
(9) 156-59-2	cis-1,2-Dichloroethylene	0.07
(10) 78-87-5	1,2-Dichloropropane	0.005
(11) 100-41-4	Ethylbenzene	0.7
(12) 108-90-7	Monochlorobenzene	0.1
(13) 95-50-1	o-Dichlorobenzene	0.6
(14) 100-42-5	Styrene	0.1
(15) 127-18-4	Tetrachloroethylene	0.005
(16) 108-88-3	Toluene	1
(17) 156-60-5	trans-1,2-Dichloroethylene	0.1
(18) 1330-20-7	Xylenes (total)	10
(19) 75-09-2	Dichloromethane	0.005
(20) 120-82-1	1,2,4-Trichloro- benzene .....	.07
(21) 79-00-5	1,1,2-Trichloro- ethane .....	.005

(b) The Administrator, pursuant to section 1412 of the Act, hereby identifies as indicated in the Table below granular activated carbon (GAC), packed tower aeration (PTA), or oxidation (OX) as the best technology treat-

ment technique, or other means available for achieving compliance with the maximum contaminant level for organic contaminants identified in paragraphs (a) and (c) of this section:

BAT FOR ORGANIC CONTAMINANTS LISTED IN § 141.61 (a) AND (c)

CAS No.	Contaminant	GAC	PTA	OX
15972-60-8	Alachlor	X	.....	.....
116-06-3	Aldicarb	X	.....	.....
1646-88-4	Aldicarb sulfone	X	.....	.....
1646-87-3	Aldicarb sulfoxide	X
1912-24-9	Atrazine	X
71-43-2	Benzene	X	X
50-32-8	Benzo[a]pyrene	X

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CAS No.	Contaminant	GAC	PTA	OX
1563-66-2	Carbofuran	X
56-23-5	Carbon tetrachloride	X	X
57-74-9	Chlordane	X .....	.....	.....
75-99-0	Dalapon	X .....	.....	.....
94-75-7	2,4-D	X .....	.....	.....
103-23-1	Di (2-ethylhexyl) adipate	X	X .....	.....
117-81-7	Di (2-ethylhexyl) phthalate	X .....	.....	.....
96-12-8	Dibromochloropropane (DBCP)	X	X .....	.....
95-50-1	o-Dichlorobenzene	X	X .....	.....
106-46-7	para-Dichlorobenzene	X	X .....	.....
107-06-2	1,2-Dichloroethane	X	X .....	.....
75-35-4	1,1-Dichloroethylene	X	X .....	.....
156-59-2	cis-1,2-Dichloroethylene	X	X .....	.....
156-60-5	trans-1,2-Dichloroethylene	X	X .....	.....
75-09-2	Dichloromethane .....	.....	X .....	.....
78-87-5	1,2-Dichloropropane	X	X .....	.....
88-85-7	Dinoseb	X .....	.....	.....
85-00-7	Diquat	X .....	.....	.....
145-73-3	Endothall	X .....	.....	.....
72-20-8	Endrin	X .....	.....	.....
100-41-4	Ethylbenzene	X	X .....	.....
106-93-4	Ethylene Dibromide (EDB)	X	X .....	.....
1071-83-6	Glyphosate .....	.....	.....	X
76-44-8	Heptachlor	X .....	.....	.....
1024-57-3	Heptachlor epoxide	X .....	.....	.....
118-74-1	Hexachlorobenzene	X .....	.....	.....
77-47-3	Hexachlorocyclopentadiene	X	X .....	.....
58-89-9	Lindane	X .....	.....	.....
72-43-5	Methoxychlor	X .....	.....	.....
108-90-7	Monochlorobenzene	X	X .....	.....
23135-22-0	Oxamyl (Vydate)	X .....	.....	.....
87-86-5	Pentachlorophenol	X .....	.....	.....
1918-02-1	Picloram	X .....	.....	.....
1336-36-3	Polychlorinated biphenyls (PCB)	X .....	.....	.....
122-34-9	Simazine	X .....	.....	.....
100-42-5	Styrene	X	X .....	.....
1746-01-6	2,3,7,8-TCDD (Dioxin)	X .....	.....	.....
127-18-4	Tetrachloroethylene	X	X .....	.....
108-88-3	Toluene	X	X .....	.....
8001-35-2	Toxaphene	X .....	.....	.....
93-72-1	2,4,5-TP (Silvex)	X .....	.....	.....
120-82-1	1,2,4-Trichlorobenzene	X	X .....	.....
71-55-6	1,1,1-Trichloroethane	X	X .....	.....
79-00-5	1,1,2-Trichloroethane	X	X .....	.....
79-01-6	Trichloroethylene	X	X .....	.....
75-01-4	Vinyl chloride .....	.....	X .....	.....
1330-20-7	Xylene	X	X .....	.....

(c) The following maximum contaminant levels for synthetic organic contaminants apply to community water systems and non-transient, non-community water systems:

CAS No.	Contaminant	MCL (mg/l)
(1) 15972-60-8	Alachlor	0.002
(2) 116-06-3	Aldicarb	0.003
(3) 1646-87-3	Aldicarb sulfoxide	0.004
(4) 1646-87-4	Aldicarb sulfone	0.002
(5) 1912-24-9	Atrazine	0.003
(6) 1563-66-2	Carbofuran	0.04
(7) 57-74-9	Chlordane	0.002
(8) 96-12-8	Dibromochloropropane	0.0002
(9) 94-75-7	2,4-D	0.07
(10) 106-93-4	Ethylene dibromide	0.00005
(11) 76-44-8	Heptachlor	0.0004
(12) 1024-57-3	Heptachlor epoxide	0.0002
(13) 58-89-9	Lindane	0.0002
(14) 72-43-5	Methoxychlor	0.04
(15) 1336-36-3	Polychlorinated biphenyls	0.0005

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CAS No.	Contaminant	MCL (mg/l)
(16) 87-86-5	Pentachlorophenol	0.001
(17) 8001-35-2	Toxaphene	0.003
(18) 93-72-1	2,4,5-TP	0.05
(19) 50-32-8	Benz[a]pyrene	0.0002
(20) 75-99-0	Dalapon	0.2
(21) 103-23-1	Di(2-ethylhexyl) adipate	0.4
(22) 117-81-7	Di(2-ethylhexyl) phthalate	0.006
(23) 88-85-7	Dinoseb	0.007
(24) 85-00-7	Diquat	0.02
(25) 145-73-3	Endothall	0.1
(26) 72-20-8	Endrin	0.002
(27) 1071-53-6	Glyphosate	0.7
(28) 118-74-1	Hexachlorobenzene	0.001
(29) 77-47-4	Hexachlorocyclopentadiene	0.05
(30) 23135-22-0	Oxamyl (Vydate)	0.2
(31) 1918-02-1	Picloram	0.5
(32) 122-34-9	Simazine	0.004
(33) 1746-01-6	2,3,7,8-TCDD (Dioxin)	3×10 ⁻⁸

[56 FR 3593, Jan. 30, 1991, as amended at 56 FR 30280, July 1, 1991; 57 FR 31846, July 17, 1992; 59 FR 34324, July 1, 1994]

§ 141.62 Maximum contaminant levels for inorganic contaminants.

(a) [Reserved]

(b) The maximum contaminant levels for inorganic contaminants specified in paragraphs (b) (2)–(6), (b)(10), and (b) (11)–(16) of this section apply to community water systems and non-transient, non-community water systems. The maximum contaminant level specified in paragraph (b)(1) of this section only applies to community water systems. The maximum contaminant levels specified in (b)(7), (b)(8), and (b)(9) of this section apply to community water systems; non-transient, non-community water systems; and transient non-community water systems.

Contaminant	MCL (mg/l)
(1) Fluoride	4.0
(2) Asbestos	7 Million Fibers/liter (longer than 10 µm).
(3) Barium	2
(4) Cadmium	0.005
(5) Chromium	0.1
(6) Mercury	0.002
(7) Nitrate	10 (as Nitrogen)
(8) Nitrite	1 (as Nitrogen)
(9) Total Nitrate and Nitrite	10 (as Nitrogen)
(10) Selenium	0.05
(11) Antimony	0.006
(12) Beryllium	0.004
(13) Cyanide (as free Cyanide).	0.2
(14) [Reserved].	
(15) Thallium	0.002
(16) Arsenic	0.010

(c) The Administrator, pursuant to section 1412 of the Act, hereby identifies the following as the best tech-

nology, treatment technique, or other means available for achieving compliance with the maximum contaminant levels for inorganic contaminants identified in paragraph (b) of this section, except fluoride:

BAT FOR INORGANIC COMPOUNDS LISTED IN SECTION 141.62(b)

Chemical Name	BAT(s)
Antimony	2,7
Arsenic ⁴	1, 2, 5, 6, 7, 9, 12 ⁵
Asbestos	2,3,8
Barium	5,6,7,9
Beryllium	1,2,5,6,7
Cadmium	2,5,6,7
Chromium	2,5,6 ^{2,7}
Cyanide	5,7,13
Mercury	2 ¹ ,4,6 ^{1,7}
Nickel	5,6,7
Nitrate	5,7,9
Nitrite	5,7
Selenium	1,2 ³ ,6,7,9
Thallium	1,5

¹ BAT only if influent Hg concentrations ≤10µg/l.

² BAT for Chromium III only.

³ BAT for Selenium IV only.

⁴ BATs for Arsenic V. Pre-oxidation may be required to convert Arsenic III to Arsenic V.

⁵ To obtain high removals, iron to arsenic ratio must be at least 20:1.

Key to BATS in Table

- 1 = Activated Alumina
- 2 = Coagulation/Filtration (not BAT for systems < 500 service connections)
- 3 = Direct and Diatomite Filtration
- 4 = Granular Activated Carbon
- 5 = Ion Exchange
- 6 = Lime Softening (not BAT for systems <500 service connections)
- 7 = Reverse Osmosis